



SEPTA



PENN CENTRAL

**OPERATION OF SILVER LINER
MARK IV CARS**

CLASS MA-1-E MA-1-F

SERIES 270 TO 303 G.E. SINGLE CARS

304 TO 399 G.E. MARRIED PAIRS

THIS MANUAL HAS BEEN PREPARED TO SERVE AS A GUIDE TO DOOR OPERATION, COUPLING AND UNCOUPLING PRECEDURES, TROUBLE-SHOOTING, ETC. OF SILVERLINER IV - G. E. CARS. IT IS FOR THE USE OF TRAIN ENGINE SERVICE EMPLOYEES, AND IS INTENDED AS INFORMATION ONLY. THE PROCEDURES OUTLINED HEREIN DO NOT SUPERSEDE OR AMEND ANY RULES OR INSTRUCTIONS GOVERNING THE OPERATION OF THIS EQUIPMENT, OR ANY OTHER APPLICABLE RULES OR INSTRUCTIONS.

F. K. West,
Manager, Philadelphia District.

February 17, 1975.

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This booklet will enable operating personnel to become familiar with the mechanical and electrical components and procedures that are employed in M.A.1-E (G. E. Commuter cars) to facilitate operating efficiency. The instructions contained herein can be implemented to correct certain operating faults enroute or to assist in moving equipment to a terminal for further repairs.

LOCATION OF ELECTRIC CABINETS CONTAINING CIRCUIT BREAKERS AND SWITCHES

Number 1. Cabinet is located in the car body, center of car, across the aisle from the Public Announcement microphone grill. It contains the Performance and Fault Indication display unit.

Number 2. Cabinet is across from the No. 1 cabinet, below the P. A. microphone grill. It contains:

- (a) Braking and motoring cut out switch - should be in position pointing to NORMAL.
- (b) Battery trainline circuit breaker - normal position of breaker in ON (up).
- (c) Battery circuit breaker - normal position of breaker is ON (up).
- (d) No motion Reset - Resets electric feature that tells the car it has reached 3 miles per hour.
- (e) Train Stop Cutout - normal position of switch is safety wired down.

CIRCUIT BREAKER PANEL is in the B-end vestibule, behind the engineman. All breakers should be in the ON position (breaker handle toward the center of the panel). Five breakers in this cabinet are vital in the train taking power:

Traction Control Breaker, Auxiliary Control, Trainline Control & Fault Protection, DC DC Converter and Air Compressor for Main Reservoir pressure. Check this cabinet when taking over a train.

Trainline & Switch Panel is in the B-end vestibule across from the hand brake and contains:

- (a) Local pantograph down switch - normal position is on TRAIN-LINE. When switched to DOWN position, pantograph will lower on that car only.
- (b) Overhead heat cutoff - provides control of overhead heat.
- (c) Floor heat cutoff - provides control of floor heat.

Note: Both heat switches may remain in NORMAL position year round.

- (d) Door trainline cutoff - provides for deadheading a portion of a train's side doors. Normal position is THRU ON.

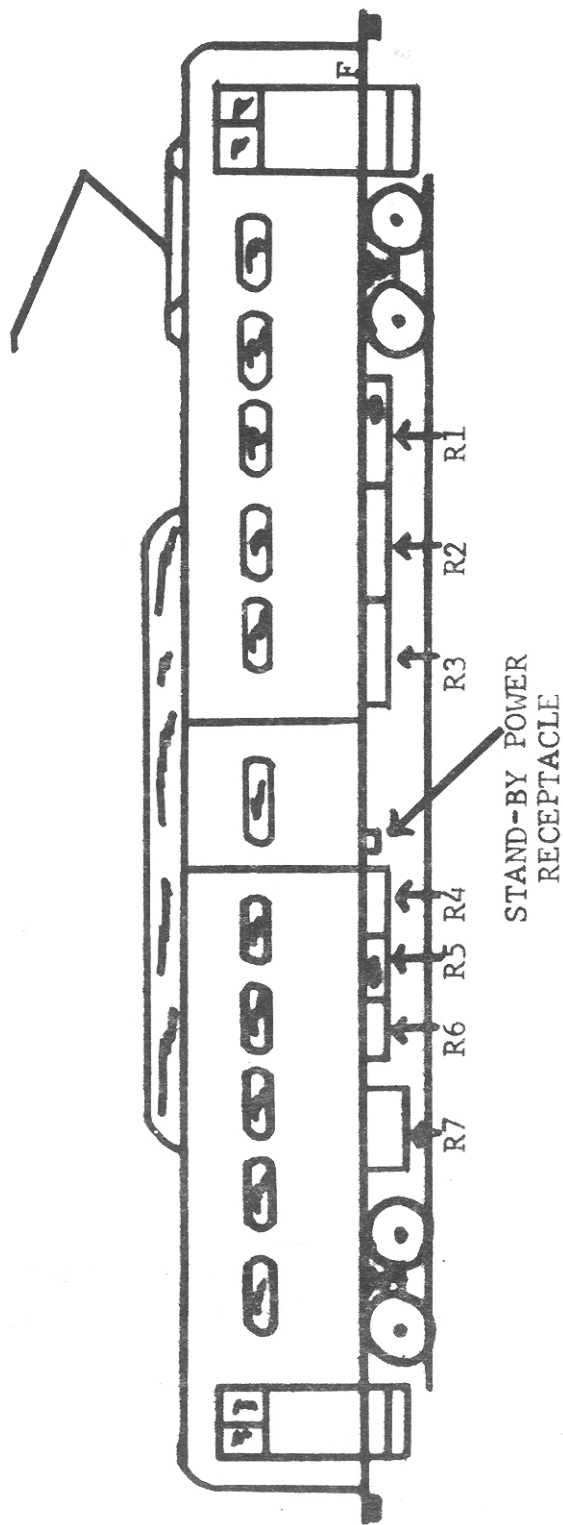
Note: In cutoff position, doors will not respond from that point beyond to trainline door opening or closing commands.

- (e) No Power Reset - extinguishes the white fault light on the exterior of the car.

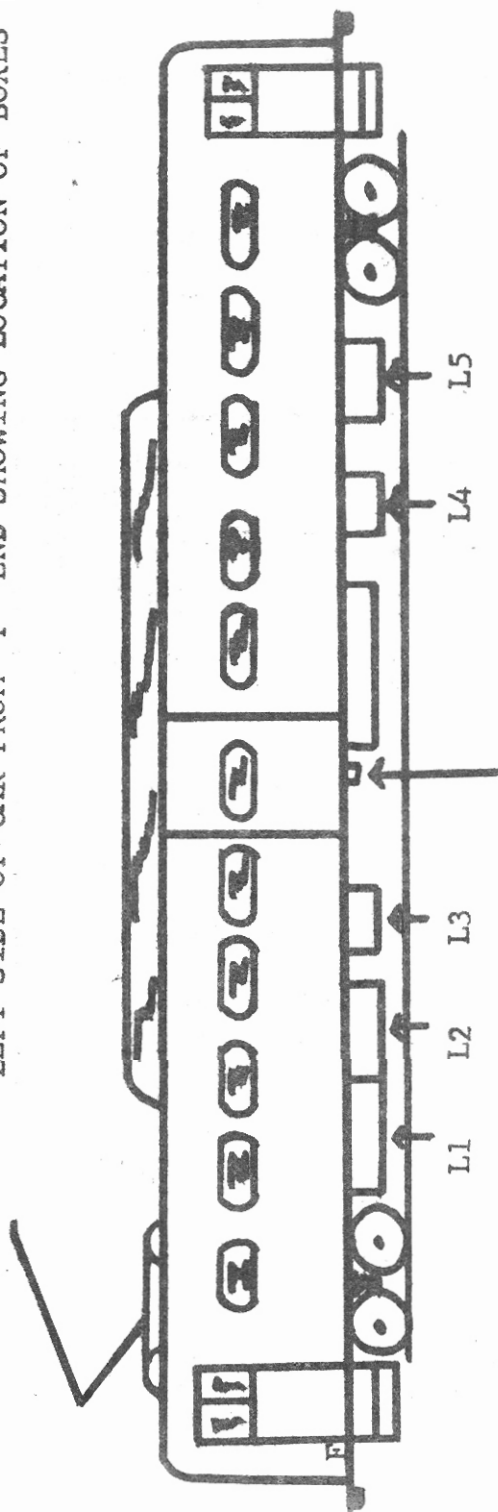
Trainline Panel is located on the A-end opposite from the engine-man's cab.

- (a) See (d) of Trainline and Switch Panel.

RIGHT SIDE OF CAR FROM "F" END SHOWING LOCATION OF BOXES

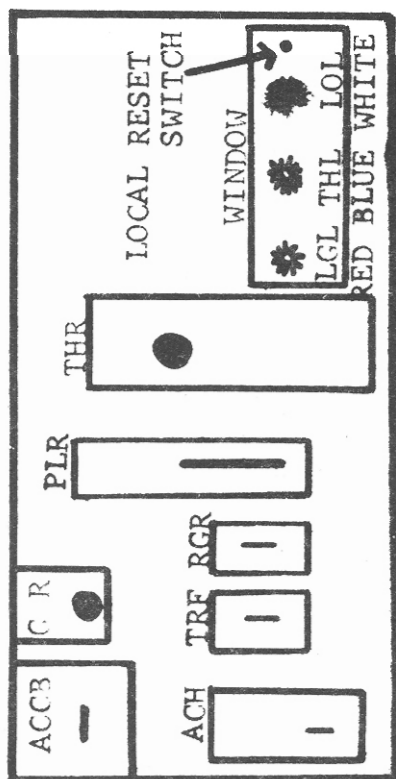


LEFT SIDE OF CAR FROM "F" END SHOWING LOCATION OF BOXES



STAND-BY POWER
RECEPTACLE

BOX R 1 MAIN GROUP



LOCATION OF BOXES CONTAINING CIRCUIT BREAKERS AND SWITCHES ON THE OUTSIDE OF CAR. Boxes on the outside of single cars are numbered numerically by L (left) side and R (right) side. The numbers start at the F (front) end of the car so that a box labeled L 2 would be the second box from the F end, on the left side. Left and Right sides can be determined by looking toward the F end from the opposite end of a car. The Letter F is stenciled at trap level on the outside of the car. Front of a Single car is the pantograph end.

Front of a Married Pair is the non-pantograph end.

Box R 1 Main Group has a long cover with window glass and contains:

- ACCB Air Compressor Control
Circuit Breaker - if
tripped, air compressor
is lost.
- ACH Air Compressor Motor
Overload Relay - push in
RED plastic pin to reset.
- GR Ground Relay - fault light
in cab. Engineman's plug
in reset gives one third
power.
If RED IGL is lit, reset
GR and RGR to restore full
power.
- TRF Transformer Hot Relay -
DO NOT RESET.
- RGR Reset Ground Relay - see
GR above.
- PLR Pantograph Lowering Relay -
3 conditions for resetting:
No blue light (THL) in Box R 1,
60 lbs. in Main Reservoir,
pantograph pneumatic grounding
switch on car roof not in
grounding position (UP). See
drawing of Pantograph.

THR Transformer Thermal
Relay - Do not reset.

Lights in Box R1 Main Group.

LGL Local Ground Light - RED
indicates a ground in Main
Group.

THL Local Transformer Light -
BLUE indicates Main Trans-
former problems. See TRF
and THR.

LOC Local Overload Light -
White reset with engine-
man's plug.
Local Reset switch -
resets ground or over-
load

Box R 4 Auxiliary Group contains five
resets.

OSR Overspeed Relay - for
motor alternator.

OVR Over Voltage Relay - for
motor alternator.

* TPF Transformer Pump and Fan.
This relay trips out 45
seconds after motor
alternator shuts down.
The above three relays are
painted silver. When
tripped, a RED area is
exposed. Push in to reset.

OL 13 Overload Relay for TPF -
push in plastic pin to
reset.

OL 46 Overload Relay for TPF -
push in plastic pin to
reset.

* Note: If TPF is tripped, reset
OL 13 and OL 46 before
resetting TPF. Check
MPWB in Box R 5.

Box R 5 Auxiliary Group has a long cover
with a window glass and contains:

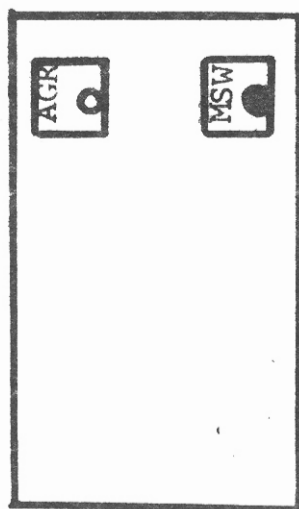
ARBA Auxiliary Rectifier Circuit
Breaker.

EFBA Equipment Fan Circuit Breaker

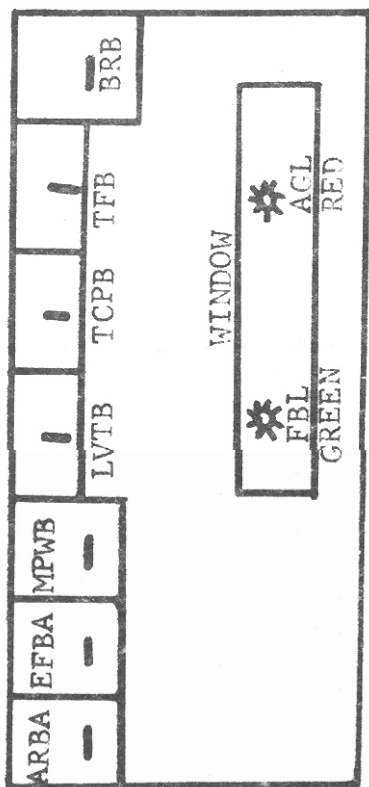
BOX R 4 AUXILIARY GROUP

OSR 	OL 13 —	OL 46 —
OVR 	TPF 	

BOX R 6 AUXILIARY GROUP



BOX R 5 AUXILIARY GROUP



- *MPWB Motor Alternator Output Circuit Breaker. (When this breaker trips note position of TPF in Box R 4 and comply with *note, pg.7
- LVTB Low Voltage Transformer Circuit Breaker.
- TCPB Transformer Cooling Pump Circuit Breaker.
- TFB 115 Volt Transformer Circuit Breaker.
- BRB Battery Rectifier Circuit Breaker.

All the above breakers in this box must be in ON position (fully up).

Lights in Box R 5:

- GREEN -FBL- Failed Blower Light. Lights when Motor Alternator shuts down. Car is DEAD.
- RED -AGL- Auxiliary Ground Light. Lights when grounds exist in the Auxiliary Group. Car is not dead.

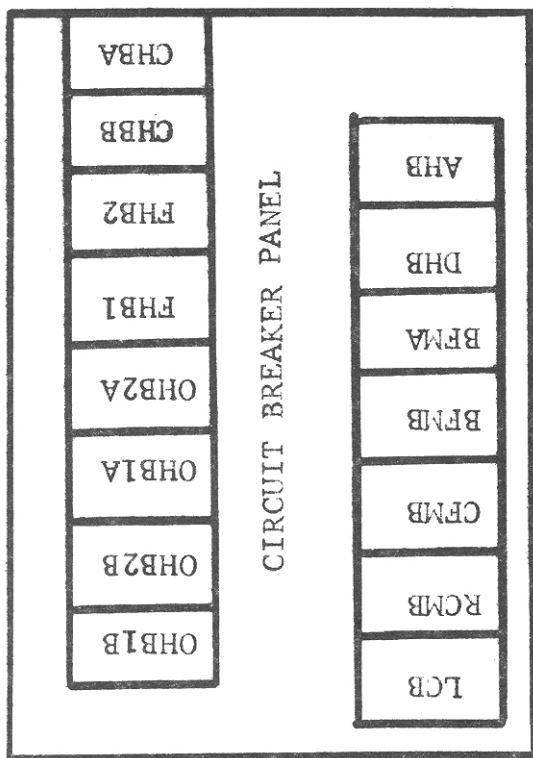
Box R 6 Auxiliary Group has a small cover and contains:

- AGR Auxiliary Ground Relay - resets auxiliary grounds, gray colored with large reset button.
- MSW Manual start for the Motor Alternator. MA normally starts with battery power. If battery is low or dead, reset MPWB breaker in Box R 4 -if necessary- and hold in the MSW knob until the green FBL light goes out in Box R 5.

Box L 3 Pantograph Magnet Valves for lowering and raising pantograph.

Box L 4 Automatic, Manual and Off control for Air Conditioning Condenser and Compressor.

BOX L 5 AIR CONDITIONING & HEAT CONTROL



Box L 5 Air Contitioning and Heat Control Box contains one breaker for car body lighting LCB (lower left corner). Top row of breakers concern overhead heat and floor heat and cab heat.

RCMB	Freon Compressor
CFMB	Condenser Fan
BFMB	Blower fan for B-end
BFMA	Blower fan for A-end
DHB	Door Heater
AHB	Auxiliary Heater.

COUPLING AND UNCOUPLING MA 1-E COMMUTER CARS

The automatic coupler is a notched male device with a companion female fitting. The coupler is a fully automatic version which makes mechanical, pneumatic and electrical connections between the cars automatically.

1. Coupling

(a) When coupling, a crewman should descend to the roadbed to make sure the couplers are within gathering range of each other, that is, the couplers are positioned where the tip of the notched male pin is within the cone area of the mating female fitting on the opposite coupler.

(b) Make a safety stop before coupling (about (3) three feet) and check to see that couplers are within gathering range, then bring the cars gently together.

(c) Observe each coupler to see that each RED tell tale latch indicator has retracted into the indicator tube thereby insuring the latch is in the locked position. (see drawing of coupler). If both RED indicators do not retract into the tubes, cars must be uncoupled

AUTOMATIC MAIN RESERVOIR
CONNECTION

MANUAL UNCOUPLING BOLT

LATCH PIN INDICATOR
TUBE

TELL TALE LATCH
INDICATOR - PAINTED
RED

RETRACTOR BAR FOR
ELECTRIC HEAD

GATHERING FUNNEL

NOTCHED MALE DEVICE

AUTOMATIC BRAKE PIPE
CONNECTION

ELECTRIC COUPLER HEAD

ELECTRIC COUPLER COVER

COUPLER

and coupled again until both RED indicators have retracted.

(d) See that retractor bars for electric heads are in the forward position.

(e) Since the brake pipe has discharged on the added cars, an emergency application will occur as the cars couple. A 45 second delay must be observed before recharging to allow the emergency valves to close.

(f) Recharge the brake pipe.

2. Coupling on a curve.

(a) manually disconnect the centering springs.

(b) Make a safety stop to assure alignment of couplers.

(c) Move couplers to desired position by hand if necessary.

(d) Couple up.

(e) Reconnect centering springs if possible

3. Uncoupling

Each car has six uncoupling buttons, one in each cab of the single car and one on each outside corner of the car underfloor. Uncouple from the car which is pulling clear since the brake pipe valve closes automatically only on the car from which uncoupling was initiated.

(A) Uncoupling from engineman's cab.

(a) Have engineman charge the brake pipe while in electric holding. (110 lbs.)

(b) Insert coach key in the uncoupling unit to the left of controller and make a half turn.

(c) Push down firmly and hold while each coupler latch is heard unlocking. The key must be held down until cars are completely separated.

(d) Remove key and secure cars left standing.

(B) Uncoupling from track level.

In order to save brake pipe pressure, initiate the uncoupling from the car which is pulling clear. This will allow the standing car or cars to go into emergency brake as the cars separate.

(a) Have engineman charge the brake pipe while in electric holding. (110 lbs.)

(b) Push and hold up on the uncoupling button until each coupler latch can be heard unlocking and cars have separated.

(c) Release button and secure cars left standing.

(C) Manual uncoupling.

A manual uncoupling wrench is found on the B-end, right side, near the steps.

(a) Close Main Reservoir and Brake Pipe Cocks.

(b) Use the wrench to turn out the uncoupling bolt located on the right side of each coupler. (see coupler drawing.) The bolt cannot be removed entirely, but will turn out enough to unlatch the mechanical notched male device so that uncoupling is accomplished.

(c) Both uncouplers must be released as the coupling is a double lock arrangement.

(d) Move the electric head uncoupling lever back to the retracted position. Raise the locking pin to hold the lever in this position. (see coupler drawing).

(e) Separate cars and secure car(s) left standing.

COUPLING TO A LOCOMOTIVE WITH A STANDARD COUPLER.

A coupler Adapter is carried in a bracket at the B-end, right side, under floor near the hand brake chain.

The adapter provides a closed knuckle to which a locomotive can be coupled in a conventional manner. The adapter has both pin and socket connections to permit attachment to the automatic coupler. A latch key is inserted vertically in the adapter to grip the notched pin of the automatic coupler. This key is secured to the adapter by a short length of chain.

- (a) Have engineman remove his plug, control handle, brake handle and cut out his brake valve.
- (b) Remove the coupler adapter from its bracket.
- (c) Lift the key out of the adapter.
- (d) Insert the adapter in the coupler as far as it will go.
- (e) Restore the retainer plate and wind belts to the adapter storage bracket.
- (f) Open the knuckle on the standard coupler.
- (g) Couple up. The locomotive will push the adapter into its locking position. Make certain no portion of the RED tell tale latch indicator is showing at the end of the indicator tube. (see coupler drawing.)
- (h) Insert the key into the adapter. Key is attached by a short length of chain.
- (i) Attach the locomotive air hose to the flexible brake pipe hose of the coupled car and open angle cocks to obtain brake pipe pressure.

To Remove the Adapter from the Coupler:

- (a) Lift latch key from inside adapter
- (b) Turn out with the manual uncoupling wrench the uncoupling bolt on the right side of the coupler. (see drawing of coupler) Adapter is now free to be removed from coupler.

DOOR CONTROL OPERATION

The side doors on this equipment do not have sensitive edges and do not re-open if a person or object has interrupted a closing.

An engineman should not be given a signal to proceed from a high level platform until all side doors are closed or protected by a crew member if a door malfunctions.

All normally operating doors remaining open when a train leaves a high level platform will close automatically at 3 miles per hour, thereby increasing the danger of a personal injury to anyone attempting to board or leave a moving train.

The door control operation system on a train is operated from door control panels located in the vestibule at both ends of each car.

Panels on each side of the train control the doors on their respective sides.

(A) Door Opening Operation

(a) Insert a coach key in door control panel on the desired side of car.

Turn key one-quarter turn clockwise to activate the panel.

(b) Trainman may open the door at which he is standing by pressing the Open This Door push button (RED).

(c) When train is stopped, trainman may open doors ahead or to the rear of his position by pressing the appropriate Open (RED) push buttons. Arrows on control panel indicate direction of door opening

(d) All doors on that side of the train will open except the one at the operating cab (with control plug in).

(B) Door Closing Operation

(a) Activate panel with use of coach key.

(b) By noting the arrows, press the appropriate close GREEN buttons. A warning bell will sound for two seconds. The doors will close one second later.

(c) Close door at activated panel by pressing the THIS DOOR ONLY button (middle GREEN).

(C) Emergency opening of doors.

Inside car body, adjacent to each side door is a door panel approximately 2' by 3'. This can be opened by pushing a pen or pencil in the small opening. Emergency instructions are printed inside of door.

LIGHTS LOCATED OUTSIDE OF CAR

In addition to the marker lights and clearance lights, there is a single RED light mounted outside on each side of the car to the rear of the cab, above the windows. When lit this light indicates a door or doors are open on that car, or door(s) are closed but door lighting circuit is not functioning normally. When not lit, RED light indicates all doors are closed and door closed circuits are made up. These lights will not be lit when a door is open and the low level trap is latched up. At the opposite end of the car from the door light are three exterior lights, one upon the other.

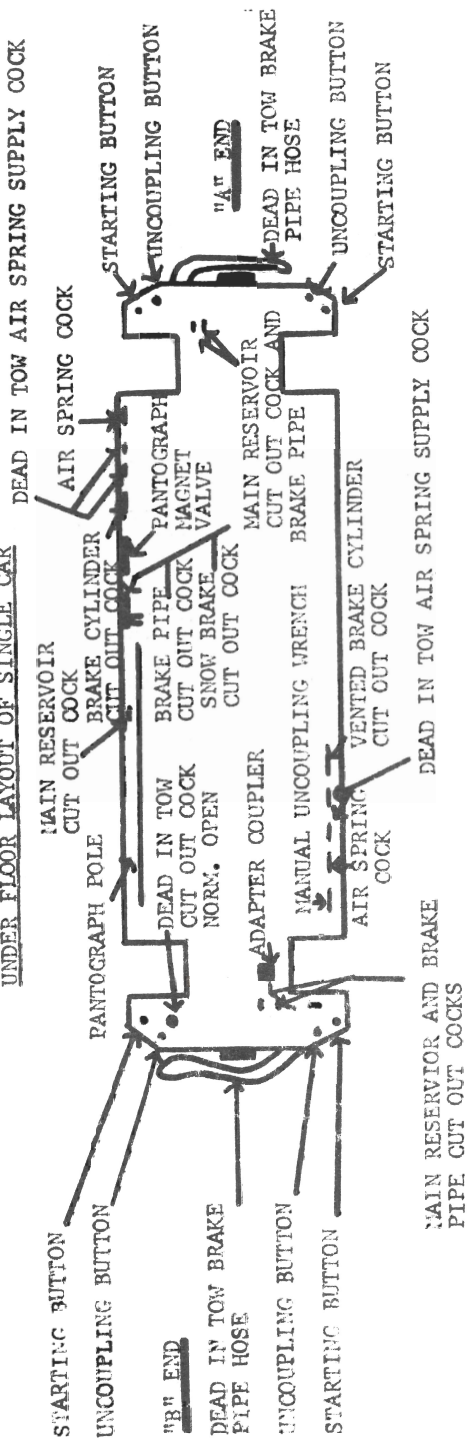
AMBER When brakes are applied on that car.

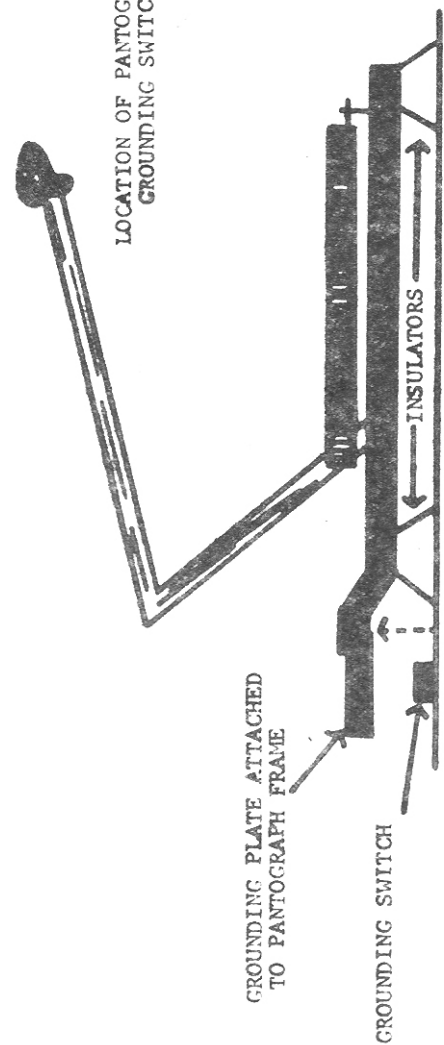
GREEN when brakes are released on that car.

WHITE is a No Power Light. Will light when engineman coasts in a power mode for 60 seconds. Note: No loss of traction power; no fault. This light

should be extinguished by resetting the toggle switch, lower left corner of Trainline & Switch panel (across from the hand brake).

UNDER FLOOR LAYOUT OF SINGLE CAR





GROUNDING SWITCH MUST BE IN DOWN POSITION AS SHOWN TO RAISE PANTOGRAPH. IF GROUNDING SWITCH IS RAISED AND TOUCHING GROUNDING PLATE DO NOT RAISE PANTOGRAPH.

ON ROAD TROUBLE SHOOTING

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
1. All blowers stopped interior lights & air cond. out.	Fault light not lit & one pantograph in train has lowered.	PLR tripped in Main group of car with lowered pantograph or "A" car of a married pair.	Manually reset PLR & raise pantograph with UP button or operate with pantograph lowered on that car or pair of cars. PLR is in Box R 1. Do not reset PLR unless Main Reservoir pressure is at least 60 lbs., no blue light in box R 1, and pantograph grounding pneumatic switch on car roof is not in grounding position. (UP). see drawing of pantograph.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
2. All pantographs lowered.	All blowers stopped. Interior lights and air cond. out.	Pantograph lower switch closed.	Check switches in train. Turn switches to OFF and raise pantographs
3. Train will not take power.	Brake released lights not lit. Door closed light not lit.	Brake not released on car or cars in train. Passenger entrance door open. Door limit switch inoperative.	Refer to para. 7 and 8. Refer to para. 12, 13, 14 & 15.
	Both of the above lights lit.	Master controller handle in power position when doors close. Brake pipe pressure below 110 psi.	Check that doors are closed and turn interlock switch on in operating cab. Return control handle to OFF and then reselect power position. Adjust ER regulating valve or operate from second car.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
	Both of the above lights are not lit.	Electrical problems Cover door on coupler at rear of train not completely closed. Tripped trainline control circuit breaker. Coupler head is retracted between coupled cars.	Operate from second car or pair of cars. Close coupler cover door or retract coupler head. Check vestibule circuit breaker panel on all cars in train. Release electric head
4. No traction power or reduced motoring on one car.	MA and blowers are operating.	Fault light lit due to an overload condition. Fault light lit due to a ground condition.	Reset using control plug to extinguish fault light and regain full traction power. Reset ground relay using control plug and manually reset RGR in Main Group having local ground light (LGL) lit to extinguish fault light and regain full traction power.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
		Motor cut-out switch in cutout position.	Turn switch to NORM position and reset local no power reset switch to extinguish fault and no power lights.
		Fault light and no power light lit.	Install spare fuse.
		Blown fuse TF-1 or TF-2 in Auxiliary Group	
		Coupler electric head retracted.	Release electric head.
		Tripped traction control circuit breaker.	Reset breaker in vestibule circuit breaker panel.
		Loose trainline jumper between A and B car.	Properly insert jumpers.
		Loose electronic card in No. 1 electric locker.	Check that all cards are securely in place.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
5. No traction power on one car.	MA and blowers not operating.	Tripped auxiliary control circuit breaker. Tripped automatic changeover circuit breaker. Check auxiliary group for: Tripped circuit breakers OSR relay tripped OVR relay tripped TPF relay tripped OL13 overload tripped OL46 overload tripped	Reset breaker in vestibule circuit breaker panel. Reset breaker in vestibule circuit breaker panel. Reset any circuit breakers found tripped Reset OSR Reset OVR Reset TPF Reset OL13 and TPF Reset OL46 and TPF

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
		Cover open on stand- by receptacle on either side of car.	Close cover and reset MPWB cir- cuit breaker in auxiliary group and TPF.
		MA overload tripped	Press local reset switch (LRS) in Main Group.
		Loose MA electronic card in No. 1 electric locker.	Check that all cards are securely in place.
		Changeover switch in wrong position and vacuum interrupter open.	Rotate manual changeover switch clockwise or counterclockwise one complete turn (to OFF) to extinguish VIOL light in No. 2 Electric locker.
MA will not start after checking all of the above.		Dead battery.	Press MA manual start switch in Auxiliary Group and hold until MA reaches operating speed.
MA will not start using manual start switch		Blown MSF fuse.	Install spare fuse.

B. BRAKE DIFFICULTIES (Figure 5-1)

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
6. Air compressor stopped.	Main reservoir pressure drop.	Tripped ACB breaker.	Reset breaker in vestibule circuit breaker panel on single or B car.
		Tripped ACCB breaker.	Reset breaker in Main Group on single cars. Reset breaker in Auxiliary Group on B cars.
		Tripped ARBB breaker.	Reset breaker in Auxiliary Group on B cars.
		Tripped hi-temp cutoff switch.	Reset switch on A end of compressor.
		MA and blowers not operating on single cars & A cars.	Reset MA and blowers. Refer to para 5.
		Blowers not operating on B cars.	Reset blowers. Refer to para 5. (If unable to start blowers, the EACS switch may be used on B cars to run air compressor.)

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
7. Brakes fail to release on one car.	Brakes released light not lit and train will not take power.	Cutout cock closed on brake control unit.	Locate car with brake applied light lit and open cutout cock or close brake cylinder cutout cocks.
(Indicated by brake applied light being lit on that car).		Brake cylinder not releasing.	Close brake cylinder cutout cocks.
		Brake cylinder pressure switch inoperative.	Check that brakes are released, retract both coupler heads and operate from longest section of train.
	100 psi BCP on car with operative cab.	Single car emergency valve open on either end of car.	Close valve.
	Handbrake light lit.	Handbrake applied.	Release handbrake on car with light lit in cab.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
8. Brakes fail to release on all or part of train.	Brakes released light OFF and brakes applied lights ON	Brake pipe cutout cock not open at end of first car with applied lights lit.	Open cock.
Unable to charge brake pipe to 110 psi.	Blow at FA-4 valve	Master controller in safety position.	Place controller in OFF position.
		DC-DC converter circuit breaker tripped at operating station.	Reset circuit breaker in vestibule circuit breaker panel.
	Low equalizing reservoir pressure	Electrical problems.	Operate from second car.
	Blow of air at a brake valve.	Defective regulating valve.	Adjust or operate from second car.
		Conductor's emergency valve open on that car.	Close conductor's valve.
		Brake valve cut IN in another cab.	Place brake valve cut off valve in OUT position.
	Blow at KM-2 vent valve.	Defective vent valve.	Plug vent valve.
	Air leak between couplers.	Defective gaskets or coupler hose.	Close BP cocks between cars, connect gladhands, open angle cocks.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
9. Undesired emergency application of brakes during service application.	All brakes applied. Brakes applied on one car during electro-pneumatic operation.	Safety control application Defective KM-2 vent valve. Cutout cock closed on brake control unit.	Recover control. Apply brakes in stages or plug vent valve. Open cutout cock or close brake cylinder cutout cocks.
10. Brake pipe charges higher than equalizing reservoir pressure.	Brakes slow to apply, unable to reach maximum service brake.	Defective dead engine fixture.	Cutout dead engine fixture one at a time until brake pipe reduces to 110 psi.
11. Loss of main reservoir pressure	Air leak between couplers.	Defective gaskets or broken air hose.	Close main reservoir cocks between cars.

DOOR DIFFICULTIES (Figures 5-2, 5-3)

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
12. Passenger doors fail to operate on entire train.	Door control panel on a car inoperative.	Door override switch closed in operating cab. Tripped door control circuit breaker either on that car or B car. No motion panel tripped on single car or B car. Defective door control panel.	Engineman release door override switch. Reset circuit breaker in vestibule circuit breaker panel. Press no motion reset in No. 2 electric locker. Operate doors from next car or pair of cars.
13. Passenger doors fail to operate on section of train.	Exterior door indicating lights lit on portion of train.	At dividing point in train where doors are open on one car and closed on another check for: Door trainline switch in vestibule trainline panel on either car is cutout.	Turn switch to THRU-ON position.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
		Key in door control panel on either car.	Remove key.
		Coupler electric head retracted on either car.	Release electric head.
14. Doors fail to operate on one car or pair of cars. (If last car or pair of cars in train, refer to para 13 also).		No motion panel tripped on single car or B car.	Press no motion reset in No. 2 electric locker.
		Tripped door control circuit breaker.	Reset circuit breaker in vestibule circuit breaker panel.
		Tripped door motor circuit breaker.	Reset circuit breaker in vestibule circuit breaker panel.
15. Individual door fails to operate.		Open access panel to door operator assembly and check for: By-pass switch turned off.	Turn switch on.

<u>TROUBLE</u>	<u>SYMPTOM</u>	<u>CAUSE</u>	<u>REMEDY</u>
		Emergency release handle in unlock position.	Place handle in lock position.
		Electrical or mechanical problems.	Turn by-pass switch off and manually close door or use emergency handle to open door.
		Trap door not either completely open or not completely closed.	Open or close trap door completely.

NOTE

"IN CASE OF EMERGENCY EXIT"

An inoperative side passenger door can be opened manually by moving the Emergency Release Handle to the unlock position. This red handle is located on the door operator assembly inside a panel in the passenger compartment side wall. Access to the Emergency Release Handle is through a hinged door in the wall.

